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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,115	01/20/2004	Dragoslav K. Milojevic	3220-092COB	3131

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EXAMINER
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MARC, MCDIEUNEL

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/761,115

Applicant(s)

MILOJEVIC ET AL.

Examiner

McDieunel Marc

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☒ The proposed drawing correction filed on 05 September 2001 is: a) ☒ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Claims **1-13** are pending.
2. Terminal disclaimer is the filed of record.
3. The rejection to claims 6-10 under 35 U.S.C. 102(e) as being anticipated by **Morton** (U.S. Pat. No. **6,365,221**) is **maintained**.
4. The rejection to claims 1-5, 12 and 13 under 35 U.S.C. 103(a) as being unpatentable over **Anfindsen** (U.S. Pat. No. **6,309,464 B1**) is **maintained**.
5. The allowability to claim 11 is **maintained**.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 6-10 are rejected under 35 U.S.C. 102(e) as being anticipated by **Morton** (U.S. Pat. No. **6,365,221**).

As per claims 6 and 10, Morton teaches a robot having paint finishing booth having a paint application zone, an arrangement of paint application robots (see figs. 1-3) comprising: a robot cluster comprising a plurality of commonly controlled robots (see fig. 3 particularly the robots), each equipped with a single manipulator arm and each mounted to a different surface of a common mounting stand (see fig. 3), and each arm equipped with at least a paint application device and positioned within the paint application zone for applying paint at a first side of a workpiece being transported through the application zone (see all fig. 3). With respect to claim 10, Morton teaches a robotic system for performing predetermined operations under direction of a controller (see fig. 3, element 12), clustering a plurality of single manipulator arm robots such that at least two bases of the robots extend in different directions toward a mounting end of their respective manipulator arms (see fig. 3).

As per claim 7, Morton teaches a robotic system wherein all the manipulator arms lie substantially in a single plane (see fig. 3).

As per claim 8, Morton teaches a robotic system wherein the single plane extends substantially vertically within the paint application zone (see fig. 3).

As per claim 9, Morton teaches a robotic system wherein the cluster comprises a single robot base equipped with the plurality of manipulator arms (see fig. 3, element 30).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-5, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Anfindsen** (U.S. Pat. No. **6,309,464 B1**).

As per claims 1, 5 and 12, **Anfindsen** teaches a robot system for performing predetermined operations under direction of a controller (see fig. 2, elements 13 and 24), comprising:

equipping the robot with a plurality of manipulatable arms (see figs. 1 and 3), with at least two of the plurality of arms performing like operations (see fig. 4, wherein both

element 14 perform like applications); with at least two of the plurality of arms having different lengths (see figs. 3 and 32). Although the pictures shown a difference in length, but such representation of Anfindsen does not specifically covers in dept the limitation of arms having different length.

It is an obvious matter of design to have different length of arm to reach different position of the vehicle, this modification would have allowed the robot to accomplish tedious painting task, thereby improving the efficiency and the reliability of the multiple arm robot arrangement.

As per claim 2, Anfindsen teaches a robot wherein the like operations comprise paint application (see fig. 4 as noted above).

As per claim 3, Anfindsen teaches a robot wherein each of the plurality of arms are positioned in a common plane (see fig. 4).

As per claim 4, Anfindsen teaches a robot wherein the common plane is a vertical plane (see figs. 3 and 4 for better view).

As per claim 13, Anfindsen teaches a robotic system wherein the like operations comprise paint application (see fig. 3, wherein all three robot being used for painting).

#### ***Allowable Subject Matter***

11. Claim 11 is allowed.

12. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fail to teach or fairly suggest comprising clustering a plurality of single manipulator arm robots such that a separation distance between attachment points of robot arms of any two of the robots is less than twice a length of a longest arm segment in the cluster in combination with the other features of the claimed invention.

### ***Response to Arguments***

13. As to the Morton's reference not teaching (a cluster of a single arm robots or the Morton's robots 14 are not bunched or clustered) (see Morton's fig. 3 and col. 4, lines 8-17), note that the operational area of the robot allows the robots to have complete access along the length of the vessel 18 (see fig. 1), wherein the robots are in cluster into the operational area in order to sand and paint the vessel. Furthermore, the definition of cluster fits into the task of the robots, since they are working in a confined area.

As to the reference not teaching (two of the plurality of arms having different lengths" (besides Afindsen's reference, Morton's also has been shown to teach pictorially a plurality of arms having different lengths (see robots in fig. 3).

14. Applicant's arguments filed 6/20/2005 have been fully considered but they are not persuasive.

***Conclusion***

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to McDieunel Marc whose telephone number is (571) 272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
McDiunel Marc

Saturday, September 03, 2005  
MM/

  
THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
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